## **Behavioral and Social Research Program**

**Research Project Grants** 

Award Mechanisms for Research Project Grants includes the following:

- P01 Research Program Project
- R01 Research Project (Traditional)
- R03 Small Research Grant
- R15 Academic Research Enhancement Award (AREA)
- R21 Planning Grant
- R37 Method to Extend Research in Time (MERIT) Award
- R55 Shannon Award
- U01 Cooperative Agreement Research Project Award

## **BUT THIS FILE CONTAINS ONLY RO3s**

**Grant:** 1R03AG022635-01

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: ADAMS-PRICE, CAROLYN E PHD

Title: PILOT STUDY ON BREAST CANCER, CHEMOTHERAPY, AGE AND UFOV

Institution: MISSISSIPPI STATE UNIVERSITY MISSISSIPPI STATE, MS

**Project Period:** 2003/07/01-2004/06/30

This RO3 application addresses the NIA (PAR-02-049) objective, "Cancer in the Elderly" (#7) and is relevant to "Basic research in Behavioral Medicine" (#8), "Cognition in Context" (#12), and "Improved Measures and Methods" (#24). The incidence of breast cancer rises dramatically for post-menopausal women and increases with age. Exposure adjusted crash risk rises with age, and scores on cognitive indicators that are highly associated with important daily activities, such as driving, also tend to decline with age. Chemotherapy is a standard treatment for breast cancer and has been associated with poorer performance on neuropsychological tests. However, effects of chemotherapy on cognitive test performance that is most closely associated with everyday functioning, such as driving, have not been examined nor have interactions between age and chemotherapy on cognitive functioning. We will conduct an innovative pilot study to explore whether chemotherapy for breast cancer is associated with impaired performance on a cognitive test that is highly related to performance of important activities, including driving. We will use as a measure the UFOV, a test of visual attention/cognitive processing speed, that correlates highly with IADLs, including driving as well as crash risk. Despite its possible relevance, the UFOV has not been used in chemotherapy studies. This study will focus on three age groups--< 50, 51-69, and 70 and above and will explore age by chemotherapy interactions. The sample will include 35-50 breast cancer survivors who have completed chemotherapy, and 35-50 age-, race-, and education-matched controls. Participants will also be tested on other cognitive tests to compare findings of this study to previous studies. Data on driving behavior, subjective neuropsychological symptoms, depression and positive protective factors will be collected to explore relationships between actual deficits, perceived deficits, protective factors, and driving behavior. Findings of chemotherapy-associated deficits may be important for the safety and independence of breast cancer survivors and may assist in designing interventions. This study will provide critical information for planning a definitive study of effects of chemotherapy and of age/chemotherapy interactions on cognitive functions.

**Grant:** 1R03AG020986-01A1

**Program Director:** CHON-LEE, ANGIE J

Principal Investigator: ARIF, AHMED A PHD

Title: DISPARITIES IN ASTHMA AMONG ELDERLY IN WEST TEXAS

Institution: TEXAS TECH UNIVERSITY HEALTH SCIS LUBBOCK, TX

**CENTER** 

**Project Period:** 2003/09/15-2004/09/14

The prevalence of asthma has been increasing both in the US and worldwide. The prevalence increased by 75% in the U.S. from 1980 to 1994. The prevalence of asthma among elderly aged 65 and above is reported to be 7% to 10%. However, this estimate may be an underestimate since there is evidence that asthma is under-diagnosed in the elderly. Hispanics are the fastest growing minority in the US, yet very few studies involve Hispanic samples, especially the elderly. The Texas Tech 5000 survey is a large population based longitudinal epidemiological study of 5000 elderly West Texas residents. The Texas Tech 5000 sample was randomly selected from residential household telephone listings in the 108 counties of West Texas. We propose to conduct a secondary data analysis of the wave-3 of the Texas Tech 5000 survey, which will permit us to assess the prevalence, predictors, and consequences of asthma, asthma symptoms and allergy in this population. The wave-3 of the Texas Tech 5000 survey was conducted from October 20001 through December 2001. A total of 3392 subjects participated in the survey for a response rate of 86.7%. The sample includes approximately 12% Hispanics. The specific objectives of this analysis are 1) to estimate and compare the revalence of asthma, asthma symptoms, and allergies among the elderly persons, 2) to test hypotheses that asthma symptoms are less likely to result in medical assessment, diagnosis and treatment among Hispanic elderly persons and among elderly persons in rural areas, 3) to assess impact of asthma and asthma symptoms on daily life, using generic (SF-12) and asthma specific health related quality of life (HRQoL) questionnaire, and 4) to determine and compare the average cost of prescription medicine used by subjects with and without asthma and how the cost of medication affects quality of life. To define asthma, two operational definitions will be used: definite asthma (based on physician-diagnosis) and probable asthma (based on asthma symptoms). Mean scores on health related quality of life, and mean number of physician office visits will be computed and compared among subjects with and without asthma. The association between asthma (definite and probable) and independent variables grouped into five categories: 1) socio-demographic variables, 2) environmental and household characteristics, 3) allergies, 4) asthma symptoms, and 5) health care access, will be analyzed using logistic regression. Proportion of elderly Hispanics and non-Hispanic subjects with asthma symptoms will be compared with regard to health care access, including medical assessment and diagnosis using chi-square statistics. A similar comparison will be made to evaluate urban/rural differences.

**Grant:** 1R03AG023271-01

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: ARTISTICO, DANIELE PHD

Title: Aging, Context, Everyday Problem Solving, & Self-efficacy

Institution: UNIVERSITY OF ILLINOIS AT CHICAGO CHICAGO, IL

**Project Period:** 2003/09/30-2005/08/31

The proposed research is in response to PAR-03-056 and addresses area 15, "Cognition in Context." It explores the impact of contextual factors on adults'beliefs in their capabilities for performance, or selfefficacy beliefs (Bandura, 1997), as well as relations among social context, self-efficacy beliefs, and actual performance on cognitive tasks. The cognitive tasks we propose to study are everyday problem solving items, that is, problems that are ecologically representative of challenges that occur in the natural social contexts of people's day-to-day lives. We draw on previous findings (Artistico, Cervone, & Pezzuti, 2003) indicating that older adults are capable of outperforming younger adults when everyday problems represent domains of high ecological relevance to the older-adult population. The proposed research builds on these past findings while specifically aiming to overcome two gaps in the extant literature. 1) Prior research comparing the performance of younger and older adults in different problem-solving contexts has confounded two independent factors: the context in which an everyday problem is faced and the content of the challenge being faced; this confound makes statements about context, per se, equivocal. We overcome this limitation by proposing experimental stimuli in which the content of a fixed everyday problem is described within varying social contexts that ecologically represent life experiences of younger, middle-age, and older adults. 2) Prior research has been group-centered, with older adults' performance being evaluated on a fixed set of problems that is generically relevant to their age group. This strategy is limited in that it may underestimate the maximal capacities of the idiosyncratic older adult who possesses unique domains of expertise that are not represented in generic item sets. We overcome this limitation through novel idiographic procedures that combine a diary study with laboratory assessments of problem solving. Participants in a single proposed study will attempt both nomothetic (relevant to a given age group) and idiographic (potentially idiosyncratic) problems. This design enables us to test the hypotheses that a) on nomothetic problem sets, there will be an interaction between participant age group and problem type, with older adults attaining their highest level of performance on problems of ecological relevance to their age group, and b) older adults will attain even higher levels of performance on idiographically-identified problems. This study would lay the foundation for a subsequent program of research that would have the aim of enhancing older adults'capacity to cope with everyday problems of living. This could be accomplished by combining the knowledge gained in the present proposed study with self-efficacy theory principles for enhancing beliefs in personal capabilities, including the provision of mastery experiences that may boost self-efficacy perceptions across multiple domains of functioning.

**Grant**: 1R03AG022611-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: BALL, MARY M PHD

Title: RELATIONSHIPS OF CARE STAFF IN ASSISTED LIVING

Institution: GEORGIA STATE UNIVERSITY ATLANTA, GA

**Project Period:** 2003/07/01-2004/06/30

The overall goal of the proposed study is to increase understanding of how assisted living facilities (ALFs) can create an environment that maximizes job satisfaction and retention of direct-care staff. The specific aims are: 1) to understand how social relationships in the work place affect job satisfaction and retention of direct-care staff in ALFs; and 2) to understand how individual, job, and workplace factors influence the development and maintenance of social relationships of direct-care staff in ALFs. Qualitative methods will be used to study two assisted living facilities in the metro Atlanta area. The proposed research sites are a 36bed non-profit facility and a 90-bed for-profit facility with a special care dementia unit. Data collection will extend over a 6-month period and will consist of in-depth interviews, informal interviewing, and participant observation. In-depth interviews will be conducted with approximately 40 direct-care staff and with 2 administrators (the person responsible for management of care staff in each home). Care staff will be selected purposively to represent variation in personal characteristics (race and age), length of employment, shift, full- and part-time status, and job content (assisted living vs. special care unit). Observations and informal interviewing of care staff will take place during bi-weekly visits to each home over the 6-month data collection period. All in-depth interviews will be tape-recorded and transcribed. Data will be analyzed using a grounded theory approach. The proposed study will provide the first comprehensive, in-depth information about the viewpoints and experiences of direct-care staff in ALFs. It will offer valuable insights to long-term care researchers, policy-makers, and service providers by illuminating the role of work-place relationships in job satisfaction and retention of direct-care staff in this setting. The study also will improve understanding of the overall experience of direct-care workers in ALFs and of how best to conduct research with these workers. Based on these findings, we plan to submit an R01 proposal to conduct a statewide study investigating more broadly the individual, sociocultural, and environmental factors that influence job satisfaction and retention and the relationship between these variables in this setting.

**Grant:** 1R03AG020652-01A1

**Program Director:** SHRESTHA, LAURA B.

Principal Investigator: BEARD, VICTORIA PHD

Title: Intergenerational Support for the Elderly in Indonesia

Institution: UNIVERSITY OF WISCONSIN MADISON MADISON, WI

**Project Period:** 2003/04/01-2005/03/31

DESCRIPTION (provided by applicant): The research analyzes the relationship between individual characteristics associated with family change and the type and level of support adult children provide their elderly parents in Indonesia. Support here refers to money, goods, time and co-residence. Since the 1970s, Indonesia has undergone profound social, economic, and demographic changes that are hypothesized to affect the social organization of the family. One change in the social organization of the family that has been theorized to accompany these changes is the growth of nucleated family structures. In Indonesia, this could have a significant and adverse impact on the well being of the elderly because most support for the elderly takes the form of co-residence. The research analyzes three waves of the Indonesian Family Life Survey (IFLS-1/1993, IFLS-2/1997, IFLS- 3/2000) and anthropological literature to address three specific aims: (1) develop a series of multivariate regression models to examine the relationship between the type and amount of support an adult child provides their elderly parents and key family change characteristics and other socioeconomic and demographic traits, (2) examine the likelihood that an adult child and elderly parent will transition into and out of co-residence between survey waves, and (3) analyze the support an adult child provides their elderly parent(s) with a specific focus on the significance of ethnicity and its associated cultural norms. The study will contribute to our understanding of intergenerational support for the elderly in Indonesia by analyzing the combined effect of structural outcomes of development as viewed through key family change characteristics, standard socioeconomic and demographic traits, and cultural norms. As a result, the proposed study seeks to provide insight into how these different forces create, maintain, and transform support relationships. The proposed study will result in submission of three manuscripts and the development of an R01 proposal. Future work will focus on (1) the perspective of the elderly parent; (2) additional independent variables based on sibling characteristics; and (3) examination of subjective, objective, and community health variables.

**Grant:** 1R03AG022195-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: BERTRAND, ROSANNA M PHD

Title: Individual Trajectories of Change in Caregiver Stres

Institution: BOSTON UNIVERSITY MEDICAL CAMPUS BOSTON, MA

**Project Period:** 2003/09/01-2004/08/31

Most caregivers of disabled or chronically ill older adults face multiple stressors on a daily basis due to factors such as those related to the care recipient (e.g., behavioral problems) or the caregiving situation (e.g., duration of care). Studies consistently find that informal caregivers report higher rates of stress than non-caregivers. Further, although there is growing empirical evidence that chronic stress demonstrates adverse effects on cognitive functioning in middle-aged and older adults, studies are lacking that have evaluated this association in caregivers, a natural group to target when studying the long-term effects of chronic stress. The proposed investigation will examine individual trajectories of the rate of change in stress over three annual time points using the Caregiver Study of Osteoporotic Fractures (CGSOF) sample, an ancillary study of the Study of Osteoporotic Fractures (SOF). CGSOF is a prospective cohort study of 375 elderly women caregivers matched on age and race to 694 elderly women non-caregivers, all of whom are SOF respondents. The general hypothesis of this study is that stress wilt intensify over time for caregivers, with the most rapid increases in stress found in caregivers who are exposed to risk factors (e.g., behavioral problems) and/or lack exposure to protective factors (e.g., social support). In turn, chronic prolonged stress will have a negative impact on cognitive performance. This study will use secondary data analyses of the CGSOF sample to expand on the existing literature by modeling growth curves of change in caregiver stress utilizing Hierarchical Linear Modeling (HLM). Growth curve modeling is ideal for examining change over time because it allows for the estimation of inter-individual differences in intra-individual change. Longitudinal techniques that are commonly used such as repeated measures analysis of variance provide estimates of average growth for discrete groups; they provide a representation of average tendencies. The proposed study wilt also add to the literature by assessing the association between chronic, prolonged stress and cognitive performance in older women caregivers and non-caregivers. The implications for this study are twofold. First, the findings from this investigation will inform an R01 proposal by providing data on individual rates of change in stress as well as the effects of chronic stress on cognition as an outcome. Second, these results have potentional public health significance since cognitive functioning has been identified as a risk factor for increased morbidity and mortality.

**Grant:** 1R03AG022075-01

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: BRASS, LAWRENCE M MD

Title: Impact of Aging on Stroke Care: A National Perspective

Institution: YALE UNIVERSITY NEW HAVEN, CT

**Project Period:** 2003/09/01-2005/08/31

DESCRIPTION (provided by investigator): Our goal is to examine the impact of aging on stroke care in the United States. Our application proposes secondary analysis of data collected as part of the National Stroke Project. The National Stroke Project was part of a Center for Medicare and Medicaid Study (CMS) program (formerly know as the Health Care Financing Administration (HCFA)) to look at quality indicators for stroke care by state. The specific aims and proposed analyses of this R03 application go beyond the analyses proposed, and funding available for, the National Stroke Project. Our application is ideally suited to PA Number: PA-01-082 (Data analysis and Archiving in Demography, Economics, and Behavioral Research on Aging). The R03 Award will permit an analysis of the National Stroke Project database related to measuring and understanding the age-related disparities in stroke care across the United States. Our analyses will yield the first national picture of how age influences the care of elderly patients admitted to the hospital with stroke. In addition, the results of this RO3 will provide new analyses critical to informing the design and content of a planned RO1 linking processes of inpatient care from the elderly patients included in the National Stroke Project with long-term outcomes. The objective of this proposal is to provide insight into how aging influences stroke care both directly and through its association with other factors including demographics, clinical co-morbidities, hospital and physician characteristics, and geography. These results will be critical to enhancing clinical decision-making and performance benchmarking. Accordingly we have set specific aims: 1-to determine the influence of age on the management of acute ischemic stroke; 2-to determine if the impact of age on stroke care is different within the 'Stroke Belt'; and 3-to examine whether hospital and physician characteristics contribute to age related differences in stroke care. Some studies have raised questions about how demographic and clinical factors contribute to the variations seen in the care and outcomes of patients with cerebro-vascular disease, but few data are available regarding how these factors specifically affect the use of specific diagnostic techniques and stroke therapies in older patients with stroke. We hypothesize that variations in care exist by age. Moreover, these differences in care will not be explained by differences clinical features or co-morbid conditions associated with aging.

**Grant**: 1R03AG022144-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: BRAUN, URSULA K MD

Title: Cultural Differences in End-of-Life Decision Making

Institution: BAYLOR COLLEGE OF MEDICINE HOUSTON, TX

**Project Period:** 2003/05/01-2004/04/30

NIA Pilot Program PAR-02-049, Subs. 20, Racial/Ethnic Differences End-of-life decision-making is an important aspect of providing quality healthcare, especially for the elderly population. Increasingly, the appropriateness of many of these decisions is being questioned. Studies have demonstrated that many invasive procedures done in seriously ill patients do not significantly alter their course, many patients die without having severe pain or other symptoms addressed, and families felt dissatisfied with their care. Additionally, there are striking racial/ethnic disparities in end-of-life care. Contrary to the usually observed reduced use of procedures for African Americans, the minority group for which the most data exist, in endof-life care procedures are used at a much higher rate in African Americans than in whites. Given that the medical-technical orientation of care at the end-of-life has been severely criticized and is considered as 'poor'quality of care by some, these observed disparities may reflect yet another example of 'worse'care for minorities. Alternatively, it could represent true cultural/ethnic/racial differences in decision-making for endof-life care. To address this gap in knowledge and gain further insight of the decision-making process, we propose a qualitative study with the Specific Aims: 1) To explore qualitatively how end-of-life decisions are made, we will conduct focus group interviews with the main participants of the decision-making process for end-of-life care, stratified by race, to assess values, concerns and beliefs that guide patients', surrogates'and physicians'end-of-life decision-making, with a special emphasis on cultural/racial/ethnic differences. 2) To create a comprehensive, culturally sensitive Values Inventory that will incorporate data empirically derived from patients'and surrogates'focus groups with the overall goal to significantly improve the quality of the decision-making process at the end-of life. The proposed study will result in a Values Inventory that will guide physicians' assessments of patients' and surrogates' values and preferences for endof-life care. This proposed project will lead directly to a RO1 application with the specific aim to assess the feasability and efficacy of using the Values Inventory in a clinical trial.

**Grant:** 5R03AG021009-02

**Program Director:** SHRESTHA, LAURA B.

Principal Investigator: BURKHAUSER, RICHARD V BA

Title: Adding Health Variables to the CNEF

Institution: CORNELL UNIVERSITY ITHACA ITACHA, NY

**Project Period:** 2002/09/30-2004/08/31

DESCRIPTION (provided by applicant): This proposal seeks funding to provide support for the development, enhancement and assembly of a new database from existing data under the Healthy People 2010 initiative. We propose to make available to the research community new health data from three longrunning panel studies: the United States Panel Study of Income Dynamics (PSID), the British Household Panel Survey (BHPS), and the German Socio-Economic Panel (GSOEP). Using these primary data sources we will recode and aggregate them to create a set of health variables measuring equivalent concepts of health in all three countries. These new health variables will be added to other conceptually equivalent data contained in the Cross-National Equivalence File (CNEF). This rich data file will be of value to researchers who study the relationship between health and soclo-economic factors in the older age population. We will: 1. update all current CNEF equivalized variables for survey years 2000 and 2001 in the BHPS, survey years 2001 and 2002 for the GSOEP, and survey years 1999 and 2001 in the PSID, 2. expand the set of equivalized variables in the CNEF by creating new comparable health variables from the recently enlarged set of self-reported health and health behavior questions in the BHPS, GSOEP, and PSID, and 3. compare the relative health and economic well-being of the older and younger populations in these modern industrialized societies and to show how health varies within and across socio-economic groups in the three countries.

**Grant:** 1R03AG022571-01

**Program Director:** SHRESTHA, LAURA B.

**Principal Investigator**: CORDER, LARRY S PHD

Title: EXCEPTIONAL HUMAN LONGEVITY IN THE NLTCS

Institution: DUKE UNIVERSITY DURHAM, NC

**Project Period:** 2003/09/15-2004/08/31

18. Exceptional Human Longevity: The changing pattern of mortality and morbidity among the aged has been exemplified by a consistent pattern of declining disability for nearly two decades accompanied by uneven mortality declines. Both younger and older aged people have experienced improvements in morbidity and mortality. In this context, the most rapid declines in mortality have been observed at exceptionally old ages. While the study of exceptional longevity has focused on mortality registry data and extant demographic models and methods, the study of exceptional healthy longevity requires additional resources in the form of linkage to registries of health service use and surveys which collect health and functional information both across the dimensions of these concepts using widely accepted measurement models and across time using a sampling plan which includes sufficient numbers of exceptionally aged persons for estimation (counts). In addition, national sample surveys corresponding to national registry coverage are most desirable. Among the national population surveys which measure health and function, the National Long Term Care Survey is unique in that it both represents the entire aged population, measures health in detail, and includes large numbers of exceptionally aged persons in the sample design. Indeed, in 1994 and 1999 NLTCS waves, large oversamples of 95+ persons were carried out. One major goal of the project will be to develop information on the persons who eventually attain 95+ in the NLTCS. Health and function histories will be developed over all waves of participation and linked to appropriate registries to identify and understand pathways to exceptional longevity and exceptional healthy longevity. Further, the 1994 and 1999 oversamples will be used to examine recent disability declines at the tail of the survival curve in detail. In particular, it is important to observe that current trends in mortality decline will produce large members of exceptionally aged persons over the next three decades, resulting in a new and distinct population phenomenon. Our specific aims will identify the characteristics and antecedents of this "new" population group as well as the nature of the morbidity/mortality relationship at the tail of the survival curve.

**Grant:** 1R03AG022953-01

**Program Director:** SHRESTHA, LAURA B.

**Principal Investigator:** CORDER, LARRY S PHD

Title: Nursing Home Use And Health Composition among U.S. Aged

Institution: DUKE UNIVERSITY DURHAM, NC

**Project Period:** 2003/09/15-2004/08/31

DESCRIPTION (provided by applicant): Older Americans are living longer and are generally, in better health than two decades ago. Nonetheless, long-term care expenditures are a major component of health care cost for the elderly, in particular because of the tripling of the oldest-old population age 85 years and older. We propose to define demographic trends in the health and disability composition of nursing home residents in recent years from 1991 to 2001 using information collected by National Nursing Home Surveys (NNHS) conducted in the interval. Nine items concerning activities of daily living, mobility, incontinence, and sight and hearing losses will be used to construct a hierarchy of disability (Grade of Membership analysis). The size of the identified disability groups, their demographic composition, and trends over time will be described. Census data will be employed to define trends in the use of nursing homes over time for the U.S. elderly population. The proposed work builds on and extends work already completed for years 1973 to 1997. A more detailed picture of recent trends is needed for projection into the near-term future. These descriptive and analytic results may also be employed to examine the recent decline in disability among the aged as well as trends in the overall pattern of morbidity in the aged population. This proposal includes work that effectively extends analyses of a repeating cross sectional survey of extraordinary duration through a period when living arrangements and disability levels are undergoing rapid, apparent change. Both the National Long Term Care Survey (NLTCS) and the Medicare Current Beneficiary Survey (MCBS) show evidence of a disability decline over the period. Continuity of NNHS analyses is essential for understanding the nature and distribution of the observed recent disability decline among the aged.

**Grant:** 5R03AG021656-02

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: CRIMMINS, EILEEN M. PHD

Title: Preparation and Distribution of the NUJLSOA

Institution: UNIVERSITY OF SOUTHERN CALIFORNIA LOS ANGELES, CA

**Project Period:** 2002/09/30-2004/08/31

DESCRIPTION (provided by applicant): The aim of this project is to distribute to the international research community two waves of data from the Nihon University Japanese Longitudinal Study of Aging (NUJLSOA). These nationally representative data of the population 65 years of age and over should provide the empirical basis for numerous studies on a variety of aging issues in Japan, comparing the U.S. and Japanese experiences, and including the Japanese experience among a set of international experiences. The aim is, thus, to provide a significant research resource to the international research community. The NUJLSOA is a longitudinal survey of a nationally representative sample of the population aged 65 and over in Japan. The sample is refreshed with younger members at each wave to retain this aspect at each wave. It was designed primarily to investigate health status of the Japanese elderly and changes in health status over time. The first wave of data was collected in November 1999, the second in November 2001, and a third wave is expected in November 2003. While the focus of the survey is health and health service utilization, other topics relevant to the aging experience are included such as intergenerational exchange, living arrangements, care giving, and labor force participation. The project will produce an English language copy of the survey instruments and English language codebooks for two waves of data. These along with SAS files and data files will be provided on a CD-ROM for distribution to the research community. In order to acquire use of the data, researchers must agree to use the data only for research purposes and not to use data to describe or identify individuals.

**Grant**: 1R03AG022650-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: CROWTHER, MARTHA R

Title: CUSTODIAL GRANDPARENTS AND RELIGION AND SPIRITUALITY

Institution: UNIVERSITY OF ALABAMA AT BIRMINGHAM BIRMINGHAM, AL

**Project Period**: 2003/09/30-2004/09/29

This proposal is in response to PAR-02-049 to reduce health disparities among older persons and populations by conducting research to disentangle the effects of socio-economic status, social and environmental factors, health behaviors, and race and ethnicity on health. There has been a steady increase in the number of Afilican American custodial grandparents. Many grandparent caregivers experience stress, decreased social and economic well-being and reduced physical health as a result of caregiving. As interest in this area grows, questions as to methods grandparents use to cope with the stress ofcaregiving increase. There is a paucity of data available on the use of religious and spiritual practices among grandparents who raise their grandchildren. Preliminary results suggest that Afi'ican American custodial grandparents are very religious and spiritual, and that religiosity and spirituality may serve as coping mechanisms for grandparents who are primary caregivers for their grandchildren. Research in the area of cognition and aging suggests that there may be differences in the cognitive abilities of those actively involved in social activities. Preliminary results suggest that older African Americans that gave support have higher levels of everyday problem solving abilities. The primary aim of this study is to examine the impact of the social activities many custodial grandparents engage in which include religious activities and activities surrounding raising their grandchildren as a protective factor against the stressors associated with caregiving and a method to enhance their cognitive abilities. While designed primarily to assess the relation between the stressors of custodial grandparenting, religion/spirituality and cognition, the proposed study has clinical and policy implications. Clinically, the results of the proposed study could help identify topics to be addressed in grandparent caregiver support groups, such as problem solving skills and coping skills. It will also aid in assessing the types of practical skills needed to provide care for other. In the realm of policy, the results of the current study could identify the areas of concern for grandparent caregivers, such as obtaining access to medical care for their grandchildren. The research team includes the principal investigator and the consultant. The investigators have prior experience, publications, and preliminary data on working with older African Americans.

**Grant:** 1R03AG022621-01

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: ETNIER, JENNIFER L PHD

Title: Predicting individual risk of cognitive decline in women

**Institution:** ARIZONA STATE UNIVERSITY TEMPE, AR

**Project Period:** 2003/08/01-2004/07/31

19. Genetics, Behavior and Aging. The epsilon 4 allele of apolipoprotein E (ApoE-e4) has been identified as a genetic risk factor for cognitive impairment, cognitive decline, and the experience of Alzheimer's Disease (AD). However, the presence of ApoE-e4 does not guarantee these cognitive outcomes. Therefore, one important direction for future research is to identify variables that may interact with ApoE genotype to determine cognitive outcomes. Physical activity is a behavioral variable that may play a role in the expression of the ApoE genotype relative to cognition. Physical activity has been shown to be associated with better cognitive abilities and with lessened cognitive decline with age. Further, the effects of physical activity on cognition have been shown in men to be moderated by ApoE genotype. Thus, the primary purpose of the proposed study is to add to the extant literature by testing the interactive effects of physical activity and ApoE genotype on the cognitive performance of a sample of older women. The literature will also be extended by assessing aerobic fitness which will provide insight into the causal mechanisms which may underlie the relationships being tested. Community-dwelling older women (50-80 years) who have a family history of AD will be recruited. Participants will perform a battery of cognitive tests, will have their blood drawn to determine their ApoE genotype, will complete a physical activity questionnaire, and will perform a maximal aerobic fitness test. It is hypothesized that the beneficial effects of physical activity and aerobic fitness on cognitive performance will be moderated by the presence of the ApoE-4 allele. Regression analyses will be used to test these effects. This study will advance our knowledge about the behavioral variables that modify genetic risk for cognitive impairment in older women. ApoE-4 is well established as a risk factor for cognitive decline and for the experience of AD. However, behavioral variables such as physical activity may impact the expression of this genetic risk factor and this study will extend our knowledge regarding this relationship. Additionally, the findings of this study will have important implications for identifying participants for whom physical activity may be especially beneficial with regards to cognition.

**Grant:** 5R03AG021073-02

**Program Director:** SHRESTHA, LAURA B.

Principal Investigator: FITZPATRICK, ANNETTE L PHD

Title: Survival and Comorbidities after Dementia

Institution: UNIVERSITY OF WASHINGTON SEATTLE, WA

**Project Period:** 2002/09/01-2004/08/31

DESCRIPTION (provided by applicant) Estimation of survival following the onset of dementia is an extremely important public health issue as America ages. A recent study reported median survival after dementia to be 3.3 years, much shorter than previously estimated. Likewise, the amount of illness that occurs as cognition declines presents a huge burden on family and health care resources alike. Accurate estimation of both of these measures is needed to predict burden for caregivers and on health resources. Recently, the Cardiovascular Health Study (CHS), a multi-site observational cohort established to investigate risk factors for heart disease and stroke in the elderly, completed an ancillary study (funded by NIA) to evaluate dementia in a subset of 3602 of its participants. A total of 480 cases of incident dementia resulted, 330 (68.8 percent) Alzheimer's disease (AD), 52 (10.8 percent) vascular dementia, 76 (15.8 percent) both AD and vascular dementia and 22 (4.6 percent) other types. We propose to utilize these data along with the extensive clinical and surveillance data of the CHS cohort to answer the following questions: (1) What is the duration of survival for individuals classified with incident dementia participating in the Cardiovascular Health Study (CHS)? (2) What are the rates of hospitalization and nursing home admission following onset of dementia? (3) Do these rates differ by type of dementia, age, gender, race or ApoE status? (4) Do these rates differ between individuals evaluated with incident dementia and others of similar age and gender enrolled in CHS? (5) What are the predictors of survival for individuals with incident dementia? We will merge together data from the following sources to achieve our goals: (1) dementia classification, type of dementia, prevalence/incidence status, and date of onset from the CHS Memory Study database; (2) all demographics, risk factor data (including MRI and neurologic symptoms) and cognition scores from the CHS clinic database; (3) date and cause of death, status at end of follow-up, and all hospitalization data from the CHS Events database; and (4) nursing home information from HCFA MEDPAR files. Cause of death and hospitalization diagnoses will be coded to meet analytic needs. Hospital and death records already collected, will be accessed and abstracted for additional information as needed. Analyses will include calculation of length bias (if present), estimation of median survival and diagnosis-specific rates of hospitalization and nursing home admission by selected demographics and type of dementia. Cox proportional hazards regression will be used to identify predictors of survival after onset of dementia. We will also continue to compile datasets and support use of the date for study collaborators. The strengths of this application include the breadth of data already available for the CHS cohort, the inclusion of well-documented incident cases of dementia, and up-to-date surveillance. This application will support continued analyses of an important database designed to provide valuable research for the prevention and impact of dementia in this country.

**Grant:** 1R03AG021655-01A1

**Program Director:** SHRESTHA, LAURA B.

Principal Investigator: GREEK, APRIL A PHD

Title: Active Life Expectancy by Sex, Race-Ethnicity, Education

Institution: BATTELLE CENTERS/PUB HLTH RES & SEATTLE, WA

**EVALUATN** 

**Project Period:** 2003/09/15-2005/08/31

DESCRIPTION (provided by applicant): The proposed project will help to clarify the process by which mortality and functional health combine to determine differences in total, active and inactive life expectancy by age, gender, race-ethnicity and education for the U.S. population 51 years of age and older. It will lead to increased knowledge regarding the length of life spent in different states of function and transitions between functional states which have important policy implications given pending increases in the older population, and particularly toward an increased understanding of the special needs of disadvantaged groups. Data from the Health and Retirement Study (HRS) and the Medical Expenditure Panel Survey (MEPS) will be applied. Sufficient data are available to examine disparities for Hispanics, African Americans, and non-Hispanic whites. The proposed project will make the following contributions. (1) Evaluate alternate measures of functional health across age, sex, race-ethnicity and education groups, and the impact of the type of measure on conclusions regarding disparities in functional health. (2) Calculate estimates of active life expectancy by age, sex, race-ethnicity and education with nationally representative data from 1996-2002. (3) Provide the first estimates of active life expectancy based on longitudinal data that include persons in middle ages and separate estimates for Hispanics. (4) Evaluate whether there is evidence of bias associated with the assumption of a single transition between interviews by comparing results of traditional panel and embedded Markov chain methods, and examine whether there are systematic differences in estimates of transitions across sex, race-ethnicity and education groups based on the two methods. (5) Examine the impact of interval duration and missed transitions in functional status on estimates of active life expectancy derived from panel data under the two methods listed above. (6) Apply microsimulation and bootstrapping techniques to estimate sampling variation and confidence intervals. With the sample including data for individuals at the tip of the Baby Boom generation (born 1947 and earlier), the information derived from the proposed study will help to plan for the pending increases in the older population.

**Grant:** 1R03AG022339-01

**Program Director:** CHON-LEE, ANGIE J

Principal Investigator: HERON, MELONIE P. PHD

**Title:** Effects of Adaption on the Health of Immigrants

**Institution:** FLORIDA STATE UNIVERSITY TALLAHASSE, FL

**Project Period:** 2003/09/15-2005/08/31

DESCRIPTION (provided by applicant): Immigration to the U.S. has tripled over the last few decades. What is the impact of this flow of immigrants on the health of the larger U.S. population? Immigrants may impact the health care system by increasing demand for services or changing the specific type of services offered in areas of high immigrant concentration. Furthermore, immigrants contribute to the socioeconomic and racial/ethnic diversity of the U.S., which has implications for optimal access to and delivery of medical care and health services across various population subgroups. Understanding the characteristics and health outcomes of immigrants is prerequisite to addressing the issue of immigrants potential impact on the U.S. population. We are interested in answering the following questions. How does the health of immigrants differ from that of natives, and along which dimensions of health? How does the health of immigrants change over time as they adapt to U.S. society? How does the immigrant-native gap in health change over time and across health outcome? Many previous studies have been plagued by limited sample size or have not used nationally representative data. Furthermore, there is no clear consensus in the literature on whether adaptation has positive or negative consequences for immigrants'health. This is partly due to the fact that many studies compare immigrants in the cross-section by years since arrival in the U.S. and infer positive or negative acculturation if groups vary significantly by duration. However, regressions done in the cross-section may lead to incorrect conclusions about assimilation if immigrant cohorts differ significantly in health or socioeconomic characteristics; in other words duration and cohort effects are confounded (Borjas, 1985). We address these shortcomings by using multiple waves of the nationally representative HRS/AHEAD data to explore the health of immigrants over time across a wide range of health outcomes. We will use logistic regression to examine immigrant-native differences in reported general health and prevalence of chronic health conditions and disability at baseline. We will then use a hazard modeling approach to 1) explore immigrant-native differences in the onset of chronic disease conditions and disability among respondents who did not have those health conditions at baseline and 2) determine whether the health of immigrants improves or worsens with time in the U.S.

**Grant**: 1R03AG022177-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: IRIS, MADELYN PHD

Title: Family Decision-making and Time-to-Diagnosis of ADRD

Institution: NORTHWESTERN UNIVERSITY EVANSTON, IL

**Project Period:** 2003/07/01-2004/06/30

This application responds to PAR-02-049, NIA Pilot Research Grant Program (R03) objective 20 (Racial/Ethnic differences and health disparities) and objective 24 (Improved measures and methodologies). This project addresses decision-making and delays in the diagnosis of Alzheimefs disease for African-American and Hispanic patients. Specific Aim 1: validate a new data collection methodology (Qualitative Decision Analysis) that uses a card sort method to trigger memory for four critical time points: First Notice of memory or behavior change; formal Problem Recognition; First Visit to Physician for evaluation of memory/behavior changes; and medical Diagnosis. Specific Aim 2: test for the following effects on decisionmaking and time-to-diagnosis latencies: acculturation, decisionmaking style, family functionality, sociodemographic characteristics, previous experience of AD, and comorbidities (using Kaplan Meier survival functions and Cox Regression). Specific Aim 3: generate pilot data for an R0-1 proposal on diagnosis seeking for chronic and degenerative diseases affecting older adults. Predictions are: (1) groups with timelines marked by onset of a major illness/catastrophic event will come to Problem Recognition more quickly than groups with time lines characterized by repetitive, cumulative events; (2) groups with timelines marked by onset of a major illnes/catastrophic event will seek medical attention for family members more quickly than participants with time lines characterized by repetitive, cumulative events; (3) groups with timelines marked by onset of a major illness/catastrophic event will display faster times to Diagnosis than participants with timeslines characterized by repetitive, cumulative events; (4) family decision-makers who are more acculturated, more assertive, have higher family functionality, and higher SES will show shorter times from First Notice to First Physician Visit; (5) when patients have higher numbers of pre-existing illnesses longer times from First Notice to Problem Recognition, but shorter times from Problem Recognition to First Contact will be found; and (6) caregivers with previous experience with ADRD will demonstrate shorter times from First Notice to First Contact. The sample includes 45 Hispanic and 45 African American caregivers who self-identify as key agents in the diagnosis-seeking process and whose family member received a diagnosis from a Primary Care Provider.

**Grant:** 1R03AG022168-01

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: ISAACOWITZ, DEREK M PHD

Title: Time's Eye: Aging and Attention to Emotional Stimuli

Institution: BRANDEIS UNIVERSITY WALTHAM, MA

**Project Period:** 2003/05/01-2004/04/30

NIA Pilot Research Grant Program, Objective 12: Cognition in Context: This project aims to use a novel methodological approach to the investigation of a primary issue in the study of socioemotional development in adulthood and old age: namely, how it is possible that most older individuals report being happy and satisfied with their lives, despite the changes they face as they age. One theory that has been offered to account for this phenomenon is socioemotional selectivity theory, which posits that emotions become more salient to individuals with age; this increased focus on emotion in cognitive processing allows older individuals to proactively regulate their emotions. If emotional material is indeed more salient to older individuals, how does this happen? It is unlikely that emotions are more salient to older individuals simply because they appraise or interpret information in a more emotion-focused way than do younger adults, suggesting that the way in which emotion is more salient to them takes place earlier in information processing than the final steps of interpretation and reframing. Emotional material may thus receive preferential treatment in the attentional processes of older adults, and this preference or bias relatively early in information processing may underlie the increased salience of emotion across many domains of their functioning. It may be the case that emotional material is simply more salient overall than is nonemotional material to older adults, or rather that older individuals show an attentional preference for positive over negative emotional stimuli. Either could help promote successful emotion regulation. This proposal aims to directly study whether there are attentional mechanisms underlying the increased salience of emotion to older individuals by using an eye tracker to measure attention to emotional and nonemotional stimuli in real time in adults of different ages. The project has two primary goals: 1. To examine whether emotion is more salient to the cognitive processing of older as compared with younger individuals, by evaluating attentional preferences to emotional vs. nonemotional and to positive vs. negative emotional stimuli; and 2. To develop and test different methods for assessing these preferences in adults of different ages. The primary hypotheses of the project are that older individuals will demonstrate greater attentional preferences for emotional over non-emotional, as well as for positive over negative, visual stimuli as compared to young adults. Two studies will be conducted to test these hypotheses, as well as to refine methods for conducting this type of research in the future. To the extent that these hypotheses are supported, it would suggest that the successful emotion regulation shown by many older individuals arises from biases and preferences in the early, attentional stages of their information processing. The results would also have implications for the etiology and treatment of depression.

**Grant:** 1R03AG021153-01A1

**Program Director:** CHON-LEE, ANGIE J

Principal Investigator: JONES, RICHARD N SCD

**Title:** Aging and the Course of Depressive Symptoms

Institution: HEBREW REHABILITATION CENTER FOR AGED BOSTON, MA

**Project Period:** 2003/07/01-2005/06/30

DESCRIPTION (provided by applicant): The relationship between aging and depression is enigmatic. Epidemiologic studies using standardized diagnostic criteria often report a decreasing prevalence and incidence of depressive disorders with age, even within very old adult age groups. Recent interpretations of available research suggests that age differences in depressive symptoms suggests a lower burden among older adults, perhaps via risk reduction and improvements in emotional resiliency accompanying old age. However, other research has suggested that the burden of depressive symptoms increases with aging. An informed inquiry of how depression relates to age and aging requires longitudinal data collected in a representative sample using established instruments. A resource for furthering our understanding of the relationship between aging and depression is the Health and Retirement Survey (HRS) conducted by the University of Michigan, a large, representative, and longitudinal study that includes a depressive symptom inventory modeled after the Center for Epidemiologic Studies - Depression scale (CES-D). However, longitudinal research using the HRS/CES-D has been hampered because the response scale and symptom coverage varies across study wave. The specific aims of this research project are: (1) to validate a scaling system, grounded in Item Response Theory, that places CES-D responses obtained using different response formats across HRS waves on an equivalent metric, (2) to examine CES-D responses for evidence of differential item functioning (DIF) and determine if patterns of DIF vary by response format, (3) to analyze the course of depressive symptoms in among aging adults, and (4) to archive depression values for HRS respondents for use by other investigators and publish the scoring algorithm for use by investigators in other studies using the CES-D. Successful completion of this research project will provide new data and understanding of the longitudinal trajectory of depressive symptoms with age among older Americans, and will lead to larger cross-study integration projects linking other studies using the CES-D -- even those different response scales -- or possibly other depression measures that provide some overlap of symptom coverage.

**Grant:** 1R03AG023236-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: KARASZ, ALISON K PHD

**Title:** Family Decisions About Palliative Care

Institution: YESHIVA UNIVERSITY BRONX, NY

**Project Period:** 2003/09/30-2005/08/31

#9 Basic Research in Behavioral Medicine Research on decision-making in end of life care has focused largely on the decisions of individual patients. However, in about 75% of deaths, family members bear the responsibility of making decisions in end of life care. Current ethical and legal guidelines for family decision making incorporate a deliberative, rational model of decision making which gives priority to patients'individual autonomy and prior wishes. A wealth of anecdotal data from the bioethics literature suggest that these guidelines are inadequate, reflecting an individual rights-oriented moral framework that may be irrelevant to many families' actual priorities and needs, especially families from non-white, nonmiddle class communities. Yet in order to develop ethical guidelines and models of care that meet families'needs, empirical research is needed to improve our understanding of how families actually make decisions about end of life care. Of the few studies reported in the literature on this topic, most are retrospective studies or have been conducted on intensive care units where decision-making may have limited scope. The proposed study is an observational, qualitative investigation of family decision-making at a key turning point in end of life care: the decision to shift the direction of treatment away from curative efforts towards a palliative care approach. Patients from three ethnic groups will be recruited for the purpose of cross-cultural comparison. The study utilizes both participant observation of family interactions and decision-making processes, and qualitative interviewing. A follow up interview at a six week interval is included to assess the impact and meaning of palliative care decisions on family members. Aims of the study include: examining decis!on-making processes and moral priorities of family members, examining the barriers to realizing decision making priorities, investigating the long term impact of decision-making, and investigating cross cultural differences in decision processes. The overall goal of the study is to identify key variables, processes and outcomes that can be measured in a larger, hypothesis-testing study of family decision making.

**Grant**: 5R03AG021001-02

**Program Director:** SHRESTHA, LAURA B.

Principal Investigator: LAMB, VICKI L MS

**Title:** Food Programs and Nutritional Support of the Elderly

Institution: DUKE UNIVERSITY DURHAM, NC

**Project Period:** 2002/09/15-2004/08/31

DESCRIPTION (provided by applicant): The major focus of this exploratory study is on nutritional programs and support, and their effects on risks of institutionalization, hospitalization and mortality. The analyses will use the National Long Term Care Survey (NLTCS), linked Medicare records, and additional data to characterize available nutritional support programs at the local and state level. The NLTCS is a large nationally representative longitudinal survey of health and disability of the US population aged 65 years and older. Questions on nutritional status (participation in Elderly Nutritional Programs, weight and physical activities) were added in 1994. A food frequency questionnaire (FFQ), a series of questions about patterns of food consumption, was added in 1999. This study will focus on the last two waves of the NLTCS, which contain this nutritional information, to pursue the following specific aims: Aim 1. To model participation in Elderly Nutrition Programs (ENPs: home delivered meals, and congregate meals), and the food stamp program among those eligible for such programs. We will estimate probit models that will be used to adjust for the propensity to participate in these programs. Aim 2. To model whether those participating in the ENPs and/or receiving food stamps in 1994, compared with those in other nutritional support arrangements, have reduced risks of institutionalization, hospitalization and mortality between 1994 and 1999. We will use hazard models to estimate the risk of these health outcomes. Aim 3. To model patterns of dietary intake in 1999, using a modified short FFQ, to explore the impact of current receipt of ENP services. Models of dietary intake will be estimated in two ways: k-means clustering, and grade of membership clustering. Regression models will be used to estimate the effects of receipt of nutritional services, health, sociodemographic and location correlates. This study will generate important hypotheses to be examined in future research on the effect of nutritional programs on elderly health outcomes, and the role of nutritional support programs as a significant factor in the provision of community based long-term care.

**Grant:** 1R03AG021014-01A2

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: LILLARD, DEAN PHD

**Title:** Smoking Cessation Among Older Americans

Institution: CORNELL UNIVERSITY ITHACA ITHACA, NY

**Project Period:** 2003/09/30-2005/08/31

DESCRIPTION (provided by applicant): Smoking is the leading preventable cause of death in the U.S., contributing to more than 400,000 deaths annually. Smoking cessation, even at older ages, reduces major health risks and increases longevity and the quality of life. The analysis of smoking cessation by people who reached age 55 in four different decades will improve our understanding of the determinants of cessation by older smokers and the potential for public policies to influence these decisions. The first specific aim of the project is to develop a new database from existing data by combining three well-known secondary longitudinal data sets - two of the samples of the National Longitudinal Surveys (NLS) Original Cohorts, and the Panel Study of Income Dynamics (PSID) - to create a merged sample for analysis. To accomplish this specific aim, we will develop methods to re-compute sampling weights that reflect differences in sample design, response rate, and attrition across the data sets. The resulting merged sample will allow for a rich empirical model and will provide more statistical power to detect important determinants of smoking cessation rates among older individuals. The second specific aim is to use the merged sample to estimate discrete time hazard models of the probability that an older smoker quits. Retrospective questions on smoking in the NLS and PSID will allow us to construct lifetime smoking histories. Using the smoking histories, we will examine the determinants of smoking cessation from the 1960s to the 1990s. Using information on geographic location, the project will merge policy variables with the core data to provide histories of the policy environments faced by respondents. These data allow us to study how guit rates are influences by taxes, direct restrictions on smoking, information about the health consequences of smoking, and the availability and advertising of smoking cessation products.

**Grant:** 1R03AG022170-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: LUDWICK, RUTH E PHD

Title: Improved Methodology: A Factorial Survey Study

Institution: KENT STATE UNIVERSITY AT KENT KENT, OH

**Project Period:** 2003/06/01-2004/05/31

The purpose of this study is to evaluate the validity and reliability of the factorial survey method for implementing an experimental design. Second, we test a method to access nurses in nursing homes as subjects. This preliminary work will serve as foundation for an R01 grant submission. Validity will be assessed by use of the recent case method identifying the isomorphism of the vignettes with real life situations. Test-retest reliability of responses will evaluate the stability of both individual and collective judgments. Strengths of the study include expansion and evaluation of the factorial survey to nursing; and ease of implementation of an experimental design that does not compromise day-to-day nursing practice. The use of semi-structured interviews will be used to determine whether any resident data was missing in the vignette or whether additional interventions might be appropriate. Based on previous studies, three dependent (patient problems) and 10 independent variables (patient conditions) related to elder patient acute confusion are used in the vignettes. Additionally, the impact of two nurse characteristics and organizational characteristics are assessed. Two hundred nurses working in nursing homes will each be given three vignettes outlining a clinical problem for which a clinical decision response is asked. The sample of 600 vignettes will allow for a power of .85 likelihood of detecting a 3% increment to R-Squared. A testretest of the vignettes will be done on a 10% subsample of respondents who score as either high or low outliers. This 10% subsample will also participate in the semi-structured interviews, which will immediately follow the test-retest of the vignettes. Descriptive statistics, regression, and a repeated measures within subjects ANOVA will be used to analyze the data.

**Grant:** 1R03AG022110-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: LYONS, KAREN S PHD

Title: A New Method to Study the Care Receiver-Caregiver Dyad

Institution: OREGON HEALTH & SCIENCE UNIVERSITY PORTLAND, OR

**Project Period:** 2003/07/01-2004/06/30

The proposed pilot study addresses NIA PAR 02-049, Research Objective 24, Improved Measures and Methodologies, by evaluating the utility of the multilevel modeling (MLM) approach to examine the wellbeing of the Care Receiver (CR)-Caregiver (CG) dyad over a 20-month period. The goal of this proposed pilot research is to reconcile changes over time in two subjective measures of well-being (i.e., mutuality) one from frail CRs and the other from CGs. MLM is an innovative methodology, which reconciles two observed measures into four latent outcomes for each dyad: a dyad score, a dyad discrepancy score, and a true score for both CR and CG, adjusted for measurement error. Thus, in contrast to standard approaches to caregiving research that focus on the individual CR and CG as units of analysis, the proposed study focuses on the dyad as the unit of analysis. A secondary goal of the study is to examine the relationships between changes in the latent dyad outcomes and changes in physical and mental well-being of both CR and CG. The proposed pilot study is a longitudinal 20-month (5-wave), secondary-data analysis of CRs and CGs from the study PREP: Family-based Care for Frail Older Persons (R01 AG17909, P. Archbold PI), known as the Family Care Study. The Family Care Study is a randomized nursing intervention trial, which follows families three times during a 12-month intervention period, and on two subsequent occasions. The aims of the proposed study are: 1. To describe dyad mutuality and dyad discrepancy for both intervention and control groups at baseline. 2. To describe the pattern of change in average dyad mutuality and dyad discrepancy over 20 months. 3. To describe the pattern of change in true score mutuality (for CRs and for CGs) over 20 months. 4. To describe the effect of the intervention on changes in dyad mutuality, dyad discrepancy, and true scores. Analyses will involve MLM (both univariate and multivariate models). Findings from this methodological case study will provide the foundation necessary to seek funding for a more comprehensive longitudinal study of the CR-CG dyad (as the unit of analysis) to plan future dyadic interventions that strive for a balance between CR and CG needs and the physical and mental well-being of the dyad.

**Grant:** 1R03AG023108-01

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: MAESTAS, NICOLE PHD

Title: Economic Cost of Joint Retirement

Institution: RAND CORPORATION SANTA MONICA, CA

**Project Period:** 2003/09/30-2005/08/31

DESCRIPTION (provided by applicant): Empirically, we observe that husbands and wives tend to retire around the same time. But because women tend to marry older men, the joint retirement of married couples implies that married women retire at younger ages than their husbands do. This study investigates the opportunity costs of married women's relatively young retirement. Unless married couples compensate in other ways for foregone opportunities to increase retirement annuities, save, and minimize health insurance costs, women's younger retirement will result in lower retirement income and thus may contribute to poverty among elderly widows. The specific aims of the project are: (1) Compare the age-earnings profiles of married men and women between the ages of 55-65, and test whether the slope is greater for women than for men of the same age; (2) Simulate married women's counterfactual retirement age in the absence of joint retirement using a structural model; (3) Calculate the value of foregone earnings, pension accruals, active saving, and employer health insurance subsidies by comparing the observed and counterfactual retirement ages of married women; and (4) Explore the implications for poverty among elderly widows.

**Grant:** 1R03AG021137-01A1

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: MATTHEWS, SARAH H PHD

**Title:** Distribution of Lineage Structures in the US Population

Institution: CLEVELAND STATE UNIVERSITY CLEVELAND, OH

**Project Period:** 2003/09/30-2004/08/31

DESCRIPTION (provided by applicant): The aim of this research is to identify the distributions of various lineage structures in the United States population in order to ascertain the degree to which they match the assertions about change made by gerontologists and demographers. We consider two types of lineage structure. Specifically, how prevalent are "bean pole" families? What is the distribution of the population into age-gapped, age-condensed, and truncated lineages? Most discussions of lineage structures focus on changes brought about by increased life expectancy and decreased fertility. Little research, however, has investigated how prevalent various structures are or how they affect intergenerational ties as they relate to support for old parents. The project will use Wave 1 (1987- 1988) and Wave 2 (1992-1994) of the National Survey of Families and Households, a panel study of a representative sample of the U.S. population aged 19 and older. Lineage structures will be categorized in two ways, first with respect to depth and size of generations to ascertain the prevalence of bean pole lineages in the population. Second, three-generations lineages will be categorized into 12 types that represent age-gapped, age-condensed, and truncated lineages as well as those which do not fall neatly into these three types. The relationship between the lineage type and race/ethnicity and social class will be described. Last, lineage type will be used in analysis as an independent variable to address the broad question of whether lineage type is associated with support for elderly parents. If there is evidence that lineage structure is a useful variable, recommendations will be made about data collection in future research.

**Grant:** 1R03AG022652-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: MCILVANE, JESSICA M PHD

Title: COPING WITH ARTHRITIS: EFFECTS OF AGE, RACE & SES

Institution: UNIVERSITY OF SOUTH FLORIDA TAMPA, FL

**Project Period**: 2003/09/30-2004/08/31

This application is a response to research objective 20) Racial/Ethnic Differences and Health Disparities. Osteoarthritis (OA), a common chronic condition, is associated with pain, functional impairment, and poor well-being for women. OA is associated with significant economic costs to society. Little is known about coping with OA in African Americans or persons with low socioeconomic status (SES), groups that tend to be over-affected but understudied. Most research on coping with arthritis is comprised of White, middle to upper class samples and may not apply to all groups. It is important to document the extent to which African Americans perceive OA as stressful, use similar strategies, and have similar physical and psychological well-being compared to their White counterparts. The purpose of this proposal is to examine coping with OA and well-being in middle-aged and older African American and White women of varying SES. The main goal is to examine similarities and differences in stress-appraisal, coping, and well-being as function of age, race, and SES. The two specific aims for this proposal are: 1) to document patterns of illness, stress, coping, and well-being among African American and White women, and 2) to examine the effects of coping on well-being based on age, race, and socioeconomic status. Participants will include equal numbers of African American and White older and middle aged women (N=200). Analyses will document basic patterns of stress, health, and coping as a function of age, race, and SES. Additional analyses will examine whether these critical variables interact to predict use of coping strategies, and whether these variables interact with coping to predict well-being. Identifying effective coping strategies for particular groups informs the design of interventions and potentially eases the burden of OA on individuals and society. This study is an important first step in the documentation of stress and coping by age, race, SES, and the role of additional critical factors such as gender and illness type. Results based on the model proposed and examined in this pilot study will be used to design a larger study which ideally will include both men and persons with rheumatoid arthritis in a multi-region study.

**Grant:** 1R03AG021533-01A1

**Program Director:** CHON-LEE, ANGIE J

Principal Investigator: MCNALLY, JAMES W PHD

Title: CLEAN PROCESS DATA- THE LILLARD METHOD USING THE PSID

Institution: UNIVERSITY OF MICHIGAN AT ANN ARBOR ANN ARBOR, MI

**Project Period:** 2003/09/15-2004/09/14

DESCRIPTION (provided by applicant): Clean Process Data represents a specific philosophy towards the cleaning and organizing complex secondary data that leaves a fully reproducible footprint of each stage of the data preparation process as well as a final analysis product. The organizational approach underlying this process represents a significant contribution to the methodology of data preparation because the outcomes can be reproduced exactly every time. This is important because the cleaning and preparation of secondary data represents an expensive and time consuming endeavor, and this cost is increased substantially when processing steps are lost or undocumented. The presence of standardized data preparation files as part of an archived data collection not only enhances the efficiency of the research process, it also adds ongoing value to these studies as sources of secondary data. During the course of the funding period we propose to accomplish three specific tasks to illustrate the value of the Lillard approach- Initially, we propose to document fully the Lillard Clean Process Data collection as a direct archival task. The completion of the documentation for the existing Lillard PSID collection will greatly enhance the research community's ability to employ this extensive collection of harmonized longitudinal files from the PSID and help contribute to the ongoing use of this important longitudinal study. Secondly, we propose to annotate the central methodological and organizational issues operationalized by the Lillard approach and their application to econometric and social research using complex data. This task will provide a set of clear guidelines for the use of the associated data processes to aid researchers in the use of the PSID files for research. More generically, the annotated guidelines will document the value of the Lillard clean process methodologies as systematic approach with applications to the organization and management of any set of complex data. Finally, we propose to explore mechanisms under which the principles and organizational structures of Clean Process Data methodology could be applied to other secondary data collections that share a complex longitudinal structure.

**Grant:** 1R03AG022692-01

**Program Director:** CHON-LEE, ANGIE J

Principal Investigator: MEARA, ELLEN R PHD

Title: RACIAL DISPARITIES AND MEDICARE PREVENTIVE SERVICES

Institution: HARVARD UNIVERSITY (MEDICAL SCHOOL) BOSTON, MA

**Project Period:** 2003/09/15-2004/09/14

The proposed research responds to the NIA Pilot Research Grant Program objective to "Reduce Health Disparities Among Older Persons and Populations" by examining topic number 20, "Racial/Ethnic Differences and Health Disparities." Although disparities in health care use and outcomes across racial and ethnic groups are well documented, the reasons for such disparities are poorly understood. It has been shown that minorities use fewer preventive services, and suffer higher rates of illnesses targeted by such preventions than other groups. The proposed research will use Medicare's expansion of preventive services coverage during the 1990's as a "natural experiment" to test whether insurance coverage of preventive services reduces racial and ethnic disparities in health care and health outcomes in an elderly population. The specific aims are: 1) to examine how expansions in the coverage of Medicare preventive services during the 1990s (influenza shots, mammography, and colorectal cancer screens) affected racial disparities in the receipt of these services; and 2) to examine whether changes in Medicare coverage of influenza shots, mammography, and colorectal cancer screens led to measurable changes in health outcomes related to these services. Using two publicly available data sources and a unique panel of seriously ill Medicare beneficiaries and spouses followed during the 1990s, the proposed research will use a difference-indifferences strategy to compare differential service use and differential health outcomes across racial and ethnic groups before and after Medicare coverage expansions.

**Grant**: 1R03AG022683-01

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: POTTER, GUY G

Title: JOB COMPLEXITY AND COGNITION IN OLDER TWIN PAIRS

Institution: DUKE UNIVERSITY DURHAM, NC

**Project Period:** 2003/09/30-2004/08/31

This proposal responds to research topic 12 (Cognition in Context), with secondary relevance to topic 19 (Genetics, Behavior and Aging). The aging of the U.S. population has stimulated public health interest in identifying factors that can preserve the cognitive functioning of older adults. Complex work may be one activity that has a salutary effect on late-life cognitive function, but factors like intelligence, educational level, and early environmental exposures are potential confounds to this association. Twin studies allow for control of many of these confounding factors. The goal of this project is to determine whether occupational complexity is associated with better late-life cognitive functioning in a sample of elderly twins, using data collected by the Duke Twins Study of Memory in Aging on members of the National Research Council-National Academy of Sciences (NAS-NRC) Registry of World War II veteran twins. Specific Aim 1 of this project is to classify each twin's primary lifetime occupation using the Dictionary of Occupational Titles (DOT), from which a measure of complexity can be derived. This allows additional Specific Aims (SA) to be tested using co-twin control analyses: (SA 2) estimate the association between occupational complexity and cognitive status, (SA 3) estimate the association between occupational complexity and change in cognitive status over time, and (SA 4) estimate the extent to which intelligence moderates the relationship between occupational complexity and cognitive status. The study sample, which comprises approximately 1000 monozygotic and 1000 dizygotic twin pairs, has been administered a cognitive status examination every 3-4 years since 1990 as part of a screening and assessment protocol for dementia. Approximately 300 of these pairs also have scores on standard armed services intelligence tests. Logistic regression dependent on twin pair will be used to estimate association between a factor-based measure of occupational complexity from the DOT and either baseline (SA 2) or change scores (SA 3) from the cognitive status measure. Analyses for SA 4 will be similar, using the intelligence test score as a covariate. If occupational complexity is found to enhance late-life cognitive functioning, this modifiable factor could inform cognitive interventions and influence decisions about occupational activities and retirement. Follow-up twin studies can explore whether complex work is a protective factor for dementia.

**Grant:** 1R03AG022057-01A1

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: ROBINS, RICHARD W PHD

Title: A Cohort-Sequential Study of Self-Esteem Development

Institution: UNIVERSITY OF CALIFORNIA DAVIS DAVIS, CA

**Project Period:** 2003/09/30-2005/08/31

DESCRIPTION (provided by applicant): Background and Aims: High self-esteem is associated with many positive outcomes, including occupational success, healthy relationships, subjective well-being, and academic achievement. Conversely, low self-esteem has been linked to a number of societal problems, including depressive symptoms, poor health, and antisocial behavior. Given its importance, we know relatively little about the development of self-esteem during adulthood and old age, about the factors that promote self-esteem at different stages of the lifespan, or about the long-term consequences of self-esteem for important life outcomes. Aims of the proposed project include: (1) to document age differences in selfesteem across the entire adult lifespan, (2) to test hypotheses about the effects of work, relationship, and health experiences on intra-individual changes in self-esteem, and (3) to examine the reciprocal influence of self-esteem on changes in work, relationship, and health experiences. Methods: The proposed research will use data from the Americans' Changing Lives (ACL) study, a national 3-wave panel study that uses a cohortsequential design in which individuals aged 25 to 96 were followed longitudinally for eight years (N = 3.617; N = 2,867; N = 2,562). The ACL dataset provides a unique opportunity to delineate the normative trajectory of self-esteem from early adulthood to old age and to examine reciprocal relations between self-esteem and important life experiences. The cohort-sequential design allows us to test whether age-related changes in self-esteem and the antecedents and consequences of self-esteem generalize across multiple age cohorts. Hypotheses will be tested using structural equation modeling with latent growth curves. Significance: The findings will help establish when in the lifespan normative change in self-esteem occurs, provide new knowledge about the conditions under which self-esteem changes, and identify factors that promote healthy self-esteem development. Moreover, the proposed research will test competing hypotheses about the positive and negative consequences of self-esteem and help reconcile conflicting theoretical views about whether self-esteem is a cause or consequence (or both) of important social problems. Finally, by examining patterns of results across developmental periods and across three life domains, we will use the findings to develop an overarching theory of the life course trajectory of self-esteem.

**Grant:** 1R03AG021609-01

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: SAITO, YASUHIKO PHD

Title: Prepartaion and Distribution of the NUJLSOA

Institution: NIHON UNIVERSITY TOKYO,

**Project Period:** 2003/06/15-2005/05/31

DESCRIPTION (provided by applicant): The aim of this project is to distribute to the international research community two waves of data from the Nihon University Japanese Longitudinal Study of Aging (NUJLSOA). These nationally representative data of the population 65 years of age and over should provide the empirical basis for numerous studies on a variety of aging issues in Japan, comparing the U.S. and Japanese experiences, and including the Japanese experience among a set of international experiences. The aim is, thus, to provide a significant research resource to the international research community. The NUJLSOA is a longitudinal survey of a nationally representative sample of the population aged 65 and over in Japan. The sample is refreshed with younger members at each wave to retain this aspect at each wave. It was designed primarily to investigate health status of the Japanese elderly and changes in health status over time. The first wave of data was collected in November 1999, the second in November 2001, and a third wave is expected in November 2003. While the focus of the survey is health and health service utilization, other topics relevant to the aging experience are included such as intergenerational exchange, living arrangements, care giving, and labor force participation. The project will produce an English language copy of the survey instruments and English language codebooks for two waves of data. These along with SAS files and data files will be provided on a CD-ROM for distribution to the research community. In order to acquire use of the data, researchers must agree to use the data only for research purposes and not to use data to describe or identify individuals.

**Grant:** 5R03AG021596-02

**Program Director:** SHRESTHA, LAURA B.

Principal Investigator: SASTRY, NARAYAN PHD

Title: Residential Mobility and Tracking of Adults

Institution: RAND CORPORATION SANTA MONICA, CA

**Project Period**: 2002/09/30-2004/08/31

DESCRIPTION (provided by applicant): The Los Angeles Family and Neighborhood Survey (L.A.FANS) is a new longitudinal study of adults, children, and 65 neighborhoods in Los Angeles County. L.A.FANS provides a unique opportunity to study important socioeconomic and health-related behaviors and outcomes among adults and elderly, with a particular focus on the effects of neighborhood social and physical environments. The first wave of the L.A. FANS (L.A.FANS-1) was completed in early January 2002. Wave 2 of the survey (L.A.FANS-2) will be fielded beginning in spring 2004. In this R03 application, we propose to conduct an interim tracking study (ITS) of Wave 1 adult respondents in 2003. The ITS will allow us to: (1) assess strategies for locating and recontacting adult respondents from L.A.FANS-1 and update contact information for respondents who are found in order to maximize recontact and response rates in Wave 2 and (2) analyze patterns of individual residential mobility and migration and of neighborhood turnover during the interval between L.A.FANS-1 and the ITS, and investigate the determinants of attrition and nonresponse in the ITS. The results of this study will have an important impact on the design and success of LA.FANS-2. Data from L.A.FANS-1 and ITS will also be used to investigate the determinants of individual residential mobility and migration among adults and the elderly and the determinants of residential turnover in Los Angeles neighborhoods.

**Grant**: 1R03AG022640-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: SORENSEN, SILVIA PHD

Title: VALIDATION OF A PREPARATION FOR FUTURE CARE MEASURE WITH OLDER

AFRICAN-AMERICANS

Institution: UNIVERSITY OF ROCHESTER ROCHESTER, NY

**Project Period:** 2003/09/15-2004/08/31

This proposal is in response to PAR-02-049 NIA Pilot Research Grant Program. It addresses Research Objective #20 (Racial/Ethnic Disparities), but also #24 (Improved Measures and Methodologies) and #12 (Cognition in Context). R03 funding is sought to validate a measure of Preparation for Future Care OPFC) in a sample of older African-Americans and to validate a brief measure of PFC. Background: PFC is defined as thoughts or actions aimed at optimizing the care received in late adulthood. Thoughts and actions might include identifying sources of aid and arranging coverage of long-term care. PFC is important because it may buffer the adverse effects of chronic, progressive illnesses and functional limitations. The most widely used measure to assess PFC, the "Preparation for Future Care Needs" instrument (PFCN), has not been validated for use with minority participants, and its discriminant validity has not been established with regard to cognitive measures and measures of attitudes and emotions about the future. Also, the 47-item measure is too lengthy to use in some research and clinical contexts. Method: Data will be collected from 200 African-American and 200 White older adults in the Rochester area. Participants will be asked to complete a 47-item PFC survey and a 21 item short form within 4 weeks of each other. They will also complete measures of everyday cognition (e.g., how to locate a phone number in the yellow pages), basic cognitive functioning (e.g., memory, tracking, inductive reasoning, comprehension), and emotional/attitudinal measures (e.g., planfulness, death anxiety, dementia anxiety). Covariates will include socio-economic variables, health care access, health status, and limitations in activities of daily living. The development of a valid short measure of PFC is fundamental to conducting future large-scale longitudinal studies of adaptation to increased illness and disability, in which only brief measures are feasible. The information gained will also contribute to the development of a screening tool for practitioners assisting older adults with care plans.

**Grant**: 1R03AG022062-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: STEVENS, JUNE PHD

Title: Obesity, diet and functional health in African-Americans

Institution: UNIVERSITY OF NORTH CAROLINA CHAPEL CHAPEL HILL, NC

HILL

**Project Period:** 2003/05/01-2005/04/30

DESCRIPTION (provided by applicant): The African American elderly population will more than triple by the year 2050. Current evidence indicates that declines in functional health are more common in this group than in Americans in general, yet little is known about modifiable risk factors that could reduce the observed declines in functional health. The purpose of this research is to determine associations of functional health with body weight, fat distribution, diet quality and alcohol consumption in African American men and women. Associations between functional health and the exposures of interest will be examined crosssectionally, prospectively, and as a function of mean annual changes. Data for this study will come from the Atherosclerosis Risk in Communities (ARIC) cohort. Information on functional health is available from 1,616 African American women and 877 African American men ages 54-73 years who participated in the visit 4 examination (1996-1998). Functional health will be assessed using lower extremity function, activities of daily living (ADLs), and instrumental activities of daily living (ADLs). Other data available include: a total of 4 measures of weight, height, waist and hip circumference, and alcohol consumption collected at 3 year intervals over 9 years prior to visit 4 and at visit 4; reported weight at age 25; and a 66-item food frequency questionnaire administered at visit I (9 years prior to the outcome measures). This proposal is directly responsive to PA-01-082 to "... suport researchers interested in undertaking secondary data analyses of data related to ... behavioral research on aging" and "... epidemiological research on the aging process and on the determinants of health and mortality in older populations .... "

**Grant:** 1R03AG022353-01

**Program Director:** STAHL, SIDNEY M.

Principal Investigator: STEVENS, JUNE PHD

Title: Obesity in early and middle adulthood and retirement

Institution: UNIVERSITY OF NORTH CAROLINA CHAPEL CHAPEL HILL, NC

HILL

**Project Period:** 2003/09/30-2005/08/31

DESCRIPTION (provided by applicant): By the year 2050, the African American elderly population is expected to more than triple while the white elderly population is expected to double. Previous work in Scandinavian countries has indicated that obesity is one lifestyle factor that is associated with disability pensions. There has been a dramatic increase in obesity in the U.S. in recent years, however, very little is known about the associations between obesity and retirement issues in the U.S. Current evidence indicates that African American men and women aged 45 years and older are more likely to report being unable to work because of a physical, mental, or emotional problem than white men and women. It is also known that the prevalence of obesity is almost twice that in African American women compared to white women. The purpose of this research is to determine long-term and short-term associations between obesity, weight gain and retirement among African American and white men and women. Analyses targeting long-term associations will examine the effect of body mass index at age 25 on subsequent age of retirement. Shortterm associations will be examined as the effect of body mass index in later adulthood on retirement in the subsequent 3 years. We will also examine associations between weight gain from age 25 to later adulthood and retirement. The proposed study will use extant data from the Atherosclerosis Risk in Communities (ARIC) cohort. Information on retirement status is available from 2,314 African American women, 1,620 African American men, 4,517 white women, and 5,409 white men aged 45-64 years at baseline (1987-1989) and examined at 3-year intervals in a maximum of 4 visits. Retirement will be assessed using information on employment status at each visit. Information on measured weight and height, self-reported weight at age 25 and several other pertinent variables will also be used in these analyses. This proposal is directly responsive to PA-01-082 to "... support researchers interested in undertaking secondary data analyses of data related to ... behavioral research on aging" and "... determinants of retirement .... "

**Grant:** 1R03AG022338-01

**Program Director:** ELIAS, JEFFREY W.

Principal Investigator: TENNSTEDT, SHARON L PHD

Title: Limited Access Dataset: The ACTIVE Study

Institution: NEW ENGLAND RESEARCH INSTITUTES, INC. WATERTOWN, MA

**Project Period:** 2003/09/01-2004/08/31

DESCRIPTION (provided by applicant): The Specific Aim of this R03 is to create Limited Access Datasets for the Advanced Cognitive Training for Independent and Vital Elderly (ACTIVE) trial, which was conducted from 1998-2001. ACTIVE was a randomized, controlled, single-blind clinical trial sponsored by the NIA and the NINR. The trial was conducted at 6 field sites (University of Alabama-Birmingham; Hebrew Rehabilitation Center for the Aged, Boston; Indiana University; Johns Hopkins University; Pennsylvania State University; and Wayne State University). The primary objective of ACTIVE was to test the effectiveness and durability of three distinct cognitive interventions in improving elders' performance on basic measures of cognition and on measures of cognitively demanding daily activities (e.g., food preparation, driving, medication use, financial management). The trial employed a four-group design, including three treatment arms (Memory Training, Reasoning Training, or Speed of Processing Training) and a no-contact control group. A total of 2,832 persons were enrolled in the trial. Because of its size and the carefully developed rigor, its datasets offer to investigators a wealth of opportunities for secondary analyses. Modifications will be made to ACTIVE datasets to ensure privacy protection for all ACTIVE participants and institutions. The reformatted datasets will be archived in read-only format on CD-ROM and accompanied by all related measurement instruments, variable descriptions and summary tables, and comprehensive documentation. The Coordinating Center for the ACTIVE trial, the New England Research Institutes, will perform this work.

**Grant:** 7R03AG021485-02

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: VAN HOUTVEN, COURTNEY H PHD HEALTH POLICY

Title: Informal Care of Older Adults and Medicare Expenditures

Institution: DUKE UNIVERSITY DURHAM, NC

**Project Period:** 2002/09/30-2004/08/31

DESCRIPTION (provided by applicant): Informal care of the elderly by their adult children is a common form of long-term care, is often preferred by the elderly to formal care, and can reduce Medicare expenditures if it substitutes for formal care. While we know a great deal about informal caregivers, only recently have researchers quantified that informal care is a net substitute for long-term care. Little is known about how informal care affects Medicare expenditures, yet concerns about the solvency of the Medicare trust fund are escalating. Current projections by the Medicare Trustees show that the Medicare trust fund will be depleted in the year 2029 (CMS, 2001). This proposed study will determine whether the reductions in formal care from informal care lead to reductions in Medicare expenditures for home health, skilled nursing, and hospital use. Data uniquely suited to address guestions of informal care and Medicare expenditures will be analyzed. The data are Medicare Claims merged with the Asset and Health Dynamics Among the Oldest-Old panel survey. The long panel data period (1992-2000) allows for a rich view of informal and formal care behavior for a nationally representative sample of adults age 70 and above, and requires use of longitudinal data analysis methods. In addition, the endogeneity of informal care in predicting expenditures requires the use of simultaneous equations methods. Instrumental variables (IV) estimation will be used to control for endogeneity, using child-level identifying instruments that have been used and validated in numerous studies. Two-part expenditure models will be used to model the expenditure behavior of the elderly for home health, skilled nursing, and hospital use. Informal care is important because it is the first line of defense for older adults who have faced a loss of independence. Ultimately informal care a effects the health status of the frail elderly, their ability to live independently, and expenditures on health care. Finding a relationship between informal care and Medicare expenditures would provide a strong impetus to examine Medicaid expenditures, would signal policymakers to include informal care supply changes in Medicare Trust fund projections, and would begin to inform the policy process about the cost-effectiveness of caregiver policies.

**Grant:** 1R03AG021759-01

**Program Director:** PATMIOS, GEORGEANNE

Principal Investigator: WINTER, JOACHIM PHD

**Title:** Experiments to Measure Consumption and Attitudes

Institution: RAND CORPORATION SANTA MONICA, CA

**Project Period**: 2003/06/15-2004/05/31

A central issue in public policy is how consumption levels and patterns change after retirement, whether such changes are expected or not, and how they are related to financial planning in pre-retirement years. The empirical analysis of these questions requires reliable data on households'consumption expenditure and attitudes. The broad aim of this project to use experimental survey techniques to assess the reliability of data obtained from established survey questions, and to explore alternative formulations. Existing largescale field surveys such as the Health and Retirement Study (HRS) as well as the upcoming Survey of Health, Aging and Retirement in Europe (SHARE) cannot provide the space to collect reliable consumption data using a detailed list of expenditure items. The first specific aim of this study is to use two alternative designs of questions on households'consumption expenditure that require only a small number of items, and to compare response behavior and quality of data obtained from these designs. The first design follows common practice, based on enumeration of expenditures for a small list of items. The second procedure is new; it uses data on financial flows and the income identity to determine the flow of non-durable consumption as a residual. In addition to reliable consumption data, information on households'attitudes is required to estimate some recent economic models that provide more flexible and realistic alternatives to the established life-cycle theory of household behavior, particularly with respect to individual heterogeneity. Such data is typically obtained using hypothetical-choice questions, but these questions might be subject to bias related to the cognitive processes that govern survey response behavior. The second specific aim of the proposed project is therefore to test response behavior in new formulations of established hypothetical choice questions that are designed to avoid some of these potential biases, and to compare response behavior in these new versions with traditional designs.